

they are about fully grown when they become more scattered. The abdomen is kept slightly raised, but is lifted much more, and the ventral surface exposed, when disturbed. They occurred in sufficient numbers last year to defoliate many young birches and destroy large portions of the foliage of some larger trees. They seemed to devour any species with equal avidity, and these included *Betula alba*, *B. lenta*, *B. lutea*, *B. nigra*, and *B. papyrifera*.

In some respects this larva resembles that of *Croesus septentrionalis* of Europe, but in the latter, the spots are all much more distinct and separate, the upper row are not connected by the brown band, the legs are not so brown, and the prolegs are tipped with brown.

Mrs. A. K. Dimmock in "The insects of Betula in N. A." (*Psyche*, 1885, v. 4, p. 286) in giving references to this insect says, "Norton (*Proc. entom. soc. Phil.*, 1862, v. 1, p. 199) describes the male of this species and later (*Trans.*

Am. entom. soc., 1867, v. 1, p. 84) describes the female." This is evidently a mistake as both of Norton's descriptions refer to the female.

All the specimens raised by me were females, and there are ten specimens, all females, in the Museum of comparative zoology at Cambridge, Mass., which were collected by J. Shute at Woburn, Mass., in 1870. The only male I have seen is an imperfect one in the Harris collection. In his catalog Harris wrote "Larva on birches, gregarious, Sept., winged May 1, 1827, do. Aug. 5, 1831."

The only references I have seen regarding the larva is at the end of Norton's description of the female (*Trans. Am. entom. soc.*, 1867, v. 1, p. 84) where he says, — "Quite rare, wild cherry, Aug. 16. Bred by Mr. Walsh from larvae feeding on birch." Was the "wild cherry" referred to, the cherry birch, *Betula lenta*?

SOUND SLEEP OF LYCAENA AMERICANA.

A few years ago, being detained in Boston until the middle of August, and having few butterflies to study, I was led to notice those few very carefully, especially *L. americana*, which was very abundant in the vacant lots, and the grass-plots in Marlborough street.

I noticed that, as one side of the street grew shady, towards sunset, *L. americana* might be seen clinging to grass-blades, and with wings somewhat drooped, suggesting that the muscles were relaxed by sleep.

Approaching one, I gently touched the grass, but the butterfly remained as before. I shook the grass, then shook it less gently, but the butterfly did not stir. Then I picked the blade, and carried it in my hand, not taking any care to keep it upright, for five blocks, and even then it was only as the sun

struck the grass, when I crossed the street, that the butterfly awoke, and lazily flew to a shady place, resting as before. I followed, and this time a touch was enough to startle it. I did not arouse it a third time, but afterwards, in the country, I tried the experiment several times, always with the same result.

I have always found the butterfly in the same position, more than half-way up the grass-blade, in the shade, and with the head up, the wings drooped to an acute, instead of a right, angle with the body. It certainly sleeps very soundly, and when aroused, does not become as active as in the middle of the day.

I have waked and disturbed one *L. americana* six times, each time immediately after it had settled down after a former awakening, and even the last time it flew but ten steps or so, and settled down as before.

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